Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2009-06-30
Date of Last Change to Activities: 2012-08-16
Investment Auto Submission Date: 2012-02-28
Date of Last Investment Detail Update: 2012-06-29
Date of Last Exhibit 300A Update: 2012-08-16
Date of Last Revision: 2012-08-16

Agency: 006 - Department of Commerce **Bureau:** 48 - National Oceanic and Atmospheric Administration

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: NOAA/NESDIS/ POES Ground System (POES-GS)

2. Unique Investment Identifier (UII): 006-000003202

Section B: Investment Detail

1. **Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

The polar operational environmental satellite system (POES) Ground System (POES-GS) supports the NESDIS POES mission. The POES mission operates with a NOAA commissioned constellation of multiple operational satellites in polar, near-polar, or sun-synchronous orbits that provide weather and environmental data collected from satellites in space and downloaded at scheduled times to the POES Ground System for satellite monitoring and control, mission data processing, analysis, and distribution. The POES satellites assure continuous data coverage that provides an uninterrupted flow of critical global information used for land, ocean, atmospheric, and space environment monitoring and input to apllications that support the meteorological, hydrological, marine, agricultural, transportation, and energy user communities. The POES-GS supports both current on-orbit and planned satellite data. Activities focus on the enhancements and incremental upgrades of POES-GS elements required for mission continuity, maintainability, compatibility, and reliability. POES-GS supports the following: -Modification and enhancement of systems to support POES, Metop, Jason, COSMIC, and future International Joint Polar Satellites (IJPS) systems. - Life cycle sustaining engineering of Command and Data Acquisiton stations (CDAs) and the Satellite Operations Control Center (SOCC). - Antenna repair, maintenance, and technical refresh. - Software development and maintenance. - Technical refresh of STAR systems, - Acquisition and IT refresh of systems used for processing and dissemination of

NOAA's data products. - Systems engineering and management of IT development for polar ground systems.

2. **How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

POES-GS is addressing any gap in the NOAA PPBES service components MS-STP-PTP POES Total Program and MS-SSV-PSO Ingest/process Satellite Observations, by extending Metop Support through 2017. The next Metop launch is April 2012. NOAA N prime was launched in February 2009. The Jason-3 Ground system is being planned for a July 2014 launch date. NOAA NESDIS GSD, working with other participating entities, will maintain the continuity of polar data and service. The POES-GS is a "system of systems" that includes collecting, processing, and disseminting critical environmental data from the POES satellites. Operations are located at Faibanks, Alaska, Wallops, Virginia, and Suitland, Maryland. It contains subsystems located in the following offices; Office of Satellite and Products Opearations, Office of Research and Operations, and the NOAA National Data Centers. The POES-GS system of systems is a real-time critical weather system that must provide current weather, health, and safety data. Any system failure could not only put the satellites systems at risk but also the general public.

3. **Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

During FY2011 the POES-GS system's accomplishments include: - Completed the Polar Acquisition and Command System (PACS) upgrades, - Completed multi-mission receiver upgrades and consolidation of the bit synchronizers, - Completed the Low Earth Orbit Terminal (LEO-T) upgrades on the 13 meter antennas at the Fairbanks CDA, - Refurbished the data feed on the 14.2 meter antenna at the Wallops CDA in order to support the Jason satellite mission, and - Completed the technical refresh and upgrade of the POES frame synchronizers at both CDAs and at the SOCC in Suitland, MD.

4. **Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

Planned accomplishments for FY2012 include: - Replacement of the disk cluster on the PACS, - Implementation of a back-up system for all IT hardware and software in the PACS, - Implement improvements to the global status display variables for the receivers, - Support Metop-launch scheduled for April 2012,post launch testing,and transition to operations, and - Start the IJPS technical refresh of the Metop satellite mission ground system. Planned accomplishments for FY2013 include: - Complete the IJPS refresh of the Metop satellite mission ground system, - Complete support of transition of Metop satellite data processing to operations, - Add enhancements to the Consolidated Workstations for operations, and - Upgrade and enhance the operators scheduling system.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified**

fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.

2010-04-07

Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	$0.0	$0.0	$0.0	$0.0
DME (Excluding Planning) Costs:	$18.3	$7.8	$6.2	$6.2
DME (Including Planning) Govt. FTEs:	$0.0	$0.0	$0.0	$0.0
Sub-Total DME (Including Govt. FTE):	$18.3	$7.8	$6.2	$6.2
O & M Costs:	$228.2	$13.4	$8.9	$8.8
O & M Govt. FTEs:	$0.0	$1.3	$1.3	$1.4
Sub-Total O & M Costs (Including Govt. FTE):	$228.2	$14.7	$10.2	$10.2
Total Cost (Including Govt. FTE):	$246.5	$22.5	$16.4	$16.4
Total Govt. FTE costs:	0	$1.3	$1.3	$1.4
# of FTE rep by costs:	0	8	8	8
Total change from prior year final President's Budget ($)		$22.5	$16.4	
Total change from prior year final President's Budget (%)		0.00%	0.00%	

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

Note that POES GS total spending in this OMB 300 is equal to the POES Ground System budget. New line items for Government FTEs and IT Security spending were added to this BY13 300. The POES Ground System summary of spending changes by a small amount each year due to planned hardware and software changes related to systems consolidation, IT refresh of old equipment, standardizing system architecture, and updating the IT security infrastructure.

Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value ($M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded	1330	DOCDG133E08CN0082									
Awarded	1330	DOCDG133E08CQ0024									
Awarded	1330	DOCDG133E10SU2321									
Awarded	1330	DOCDG133E10NC2446									
Awarded	1330	DOCDG133E11NC0168									
Awarded	1330	DOCDG13312BA0017									
Awarded	1330	DOCDG133E11NC2236									
Awarded	1330	DOCR1BK13090030									
Awarded	1330	DOCDG133E12NC1175									

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:
Per FAR 34.201 Earned value is required for major acquisitions for development. However, the POES-GS project manager is not required by the agency CIO to submit a monthly EVM report because development efforts do not meet the minimal dollar criteria for requiring EVM reports. The majority of POES-GS contracts are for IT Refresh and steady state engineering support not for development. See also Section I.A.I DOC Supplemental Data text.

Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities: 2012-08-16

Section B: Project Execution Data

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
3202D12003	Special Projects	Provide technical support and equipment to OSD and OSPO sites to improve systems performance and resolve special issues including data archiving, new ground systems requirements for handling data from new satellites, and IT infrastructure needs.			
3202M12001	Radio Frequency (RF)	Monitor current RF systems and provide RF engineering support to resolve RF issues. Upgrade SW/HW requirements to support polar's international agreements.			
3202M12002	Telemetry and Command/Instruments	Provide technical analysis, identify causes, mitigation, and solutions for performance issues, develop technical specifications for new telemetry systems, and study new technology for possible applications to NESDIS systems.			
3202M12004	IT Refresh	Support IT refresh particularly compliance with NOAA NESDIS configuration management and enterprise architecture guidelines,			

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
		and compatibility and interoperability with NESDIS ground systems.			
3202M12005	IT Security	Polar ground system compliance with IT security requirements including periodic recertifications.			

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
3202D12003	Special Projects							
3202M12001	Radio Frequency (RF)							
3202M12002	Telemetry and Command/Instruments							
3202M12004	IT Refresh							
3202M12005	IT Security							

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
3202D12003	HW/SW licenses and Post Launch Testing (PLT) support	Expand POES-GS licensing agreements to cover NPP DP and support NPP Post Launch product testing.	2012-03-31	2012-03-31	2012-03-30	182	1	0.55%
3202M12001	Plan refresh of RF equipment for Polar ground systems at Wallops, Fairbanks and Suitland	Acquisiton plan	2012-03-31	2012-03-31	2012-03-09	182	22	12.09%
3202M12002	PACS Upgrade and	Complete global	2012-03-31	2012-03-31	2012-03-30	182	1	0.55%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
	Enhancements - Global rebuild	rebuild software release (DROP II) - PACS.						
3202M12004	Develop Lowrate processor	Develop Lowrate CCSDS processor.	2012-03-31	2012-03-31	2012-03-30	182	1	0.55%
3202M12005	IT Security Testing	Develop and execute IT Security tests on Jason 3 ground systems.	2012-03-31	2012-03-31	2012-03-30	182	1	0.55%
3202D12003	IJPS contract award and SRR	Award contract and define requirements.	2012-03-31	2012-03-31	2012-03-30	182	1	0.55%
3202D12003	PDS and GDS Server Baseline	Procurement of POES Data Server (PDS) and Gobal Data Server (GDS).	2012-09-28	2012-09-28		179	0	0.00%
3202D12003	Communications Circuits	Install Jason-3 Telemetry and Comand (T&C) between Fairbanks and Suitland.	2012-09-28	2012-09-28		179	0	0.00%
3202M12002	PACS Upgrade and Enhancements - Consolidated Workstation (CWS) and cluster.	Complete global rebuild DROP II-IPACS, CWS IP and cluster upgrade.	2012-09-30	2012-09-30		182	0	0.00%
3202M12004	Develop Highrate processor	Develop Highrate CCSDS processor.	2012-09-30	2012-09-30		182	0	0.00%
3202M12005	Testing and Documentation	IT Security testing and documenting test results and resolve issues as needed.	2012-09-30	2012-09-30		182	0	0.00%
3202D12003	IJPS Tech Refresh - CDR, procurement, and fiber installation	Complete CDR and Fairbanks Fiber Installation.	2012-09-30	2012-09-30		182	0	0.00%

Section C: Operational Data

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
% of delivered data meeting quality requirements.	% of total data delivered w/in quality requirmnts.	Customer Results - Service Quality	Over target	98.500000	98.500000	99.400000	99.000000	Monthly
Contribution of Polar satellites to Weather and Water goals.	International environmental data as a % of POES-GS	Mission and Business Results - Services for Citizens	Over target	97.000000	98.700000	99.600000	98.900000	Monthly
Percent of data meeting timeliness requirements delivered to ESPC within 2 hours.	% of data meeting timelimess requirements	Technology - Reliability and Availability	Over target	92.500000	92.500000	99.500000	95.000000	Monthly
Re-processing Capability Status	% of total data pre-processed and delivered to Ops	Technology - Effectiveness	Over target	99.000000	99.000000	99.800000	99.000000	Monthly
Data recovered by POES ground system as percentage of POES satellite data transmitted	% of available data recovered	Technology - Efficiency	Over target	95.000000	97.000000	98.700000	98.000000	Monthly